DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
Interim Final 2/5/99
RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)
Current Human Exposures Under Control

Facility Name:	CBS Corporation (Westinghouse Sharon)
Facility Address:	469 Sharpsville Road, Sharon PA 16146
Facility EPA ID #:	PAD005000575

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

X If yes - check here and continue with #2 below.

____ If no - re-evaluate existing data, or

____ if data are not available skip to #6 and enter"IN" (more information needed) status code.

This facility was included on the RCRA high priority NCAPS list while already listed on the CERCLA NPL. The RCRA program and CERCLA program formally deferred investigation and cleanup to the CERCLA program on February 9, 2000, after CERCLA activity was well underway. Information used in this EI determination comes from the CERCLA program file.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

The former Westinghouse Electric Sharon Transformer Plant (Westinghouse) is built on a 50-acre site along the Shenango River in Sharon, Mercer County, Pennsylvania. During its operations from 1922 to 1985, Westinghouse manufactured and distributed electrical transformers. Between 1936 and 1976, Westinghouse used blends of polychlorinated biphenyls (PCBs) and trichlorobenzene in the manufacture of transformers at the plant.

This facility was included in the original list of high priority RCRA corrective action facilities. However, as noted above, investigation and cleanup responsibilities were formally deferred to CERCLA on February 9, 2000.

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	x			PCBs and Solvents
Air (indoors) [2]		x		
Surface Soil (e.g., <2 ft)	x			PCB
Surface Water		x		
Sediment	x			PCB
Subsurf. Soil (e.g., >2 ft)		x		
Air (outdoors)		x		

___ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

X If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

___ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Groundwater is contaminated with PCBs and solvents. On-site soils and concrete as well as a large, vacant building on-site (the Middle Sector Building) are contaminated with PCBs. The sediments of the Shenango River and a drainage swale on site are contaminated with PCBs from the former Site operations. People who come into direct contact with or accidentally ingest contaminated sediments and soil may be at risk.

Footnotes:

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table
Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	n/a	no	n/a	no	no	no	no
Air (indoors)	n/a	no	n/a	no	no	no	no
Soil (surface, e.g., <2 ft)	n/a	yes	n/a	yes	no	no	no
Surface Water	n/a	no	n/a	no	no	no	no
Sediment	n/a	no	n/a	no	no	no	yes
Soil (subsurface e.g., >2 ft)	n/a	no	n/a	yes	no	no	no
Air (outdoors	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

___ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

X If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

___ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):
Pathways for on-site construction workers have not been eliminated, but work is in progress to address contamination that will prevent contamination to PCB levels above 689 ppm in the surface soil (mainly through removal). Building on the site slated for re-use are currently being cleanup by the PRP group or the redeveloper. The river sediment contamination can potentially introduce PCBs into the food chain through fish consumption. The river sediments are being addressed through a February 2003 ROD requiriung cleanup of the most contaminated areas. There is a current fish advisory in effect for the Shenango River that advises limiting intake of fish from the river to one per month.

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

X If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

As an active remediation project, access is controlled at all times. The site is undergoing redevelopment as a commercial property, hence there are no residential exposure. On-site workers will not be exposed to contamination since the soil and buildings are undergoing remediation via cleaning or removal. Groundwater contamination does not leave the site. The drainage swale and the Shenango River sediments are the subject of a cleanup decision issued by EPA in February 2003. The ROD expects removal of the most contaminated areas of sediment and riparian soil. There is currently a fish advisory for the Shenango River for PCBs, limiting fish consumption to one meal per month. (PADEP website, EPA ROD–NPL database). **Long term groundwater monitoring will be implemented to insure that the plume remains stable and on-site.**

5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

X YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the former Westinghouse facility, PAD 005000575, located 469 Sharpsville Road, Sharon, PA under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Completed by (signature) /s/ Date 5/19/03
(print) Paul J. Gotthold
(title) Chief, PA Operations

Supervisor (signature) /s/ Date 5/19/03
(print) Maria Parisi Vickers
(title) Deputy Director, WCMD
(EPA Region or State)

Locations where References may be found:
PADEP
Website:http://www.dep.state.pa.us/dep/deputate/watermgt/Wqp/WQStandards/FishAdvis/fishadvisory03.htm

EPA Administrative Records for CERCLA NPL sites:

http://www.epa.gov/superfund/sites/rods/index.htm

Also: conversations with Victor Janosik, CERCLA RPM 215-814-3217

Contact telephone and e-mail numbers:

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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE

DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.